

THREE NEW SPECIES OF *HYGIA* (*PTEROCOLPURA* BLÖTE)
(HEMIPTERA: HETEROPTERA: COREIDAE: COREINAE:
COLPURINI) FROM SUMATRA

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Abstract.—Three **new species** of the subgenus *Hygia* (*Pterocolpura* Blöte), from Sumatra (Indonesia) are described and illustrated: *H. (P.) anthrax*, *H. (P.) diaphora*, and *H. (P.) sylvestris*.

Key Words: Insecta, Heteroptera, Coreidae, Colpurini, new species, Indonesia, Sumatra

This paper is a sequel to my earlier papers on the subgenus *Hygia* (*Pterocolpura* Blöte) (Brailovsky 2002, Brailovsky and Barrera, in press). A considerable quantity of additional Colpurini material collected in 1999 by A. V. Gorochoy and members of the Zoological Institute in St. Petersburg, Russia, has become available, and three new species have been identified. The subgenus now contains 25 species.

The following abbreviations are used for the institutions cited in this paper: UNAM (Instituto de Biología, Universidad Nacional Autónoma de México); ZMAS (Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia).

All measurements are in millimeters.

Hygia (Pterocolpura) anthrax
Brailovsky, new species
(Fig. 2)

Description.—Measurements: Male: Head length 1.52; width across eyes 1.40; interocular space 0.74; interocellar space 0.30; preocular distance 0.96; length antennal segments: I, 1.42; II,

2.12; III, 1.36; IV, 1.22. Pronotum: Length 1.64; maximum width of anterior lobe 1.60; maximum width of posterior lobe 2.72. Scutellar length 1.28; width 1.24. Body length 9.12. Female: Head length 1.72; width across eyes 1.52; interocular space 0.80; interocellar space 0.35; preocular distance 1.04; length antennal segments: I, 1.46; II, 2.16; III, 1.46; IV, 1.36. Pronotum: Length 2.08; maximum width of anterior lobe 1.92; maximum width of posterior lobe 3.28. Scutellar length 1.52; width 1.50. Body length 10.64.

Male (holotype). *Color:* Black with following areas yellow to brownish yellow: antennal segment IV (basal third black), dorsal view of postocular tubercle, apex of scutellum, an irregular discoidal spot on inner third of apical margin of endocorium, posterior margin of connexivum, rostral segments I to IV, trochanters, anterior lobe of metathoracic peritreme, and posterior margin of pleural abdominal sterna; anterior half of costal border of corium dark orange, and posterior half black; hemelytral membrane dark brown; femora black

with brownish-orange marks, and basal joint brownish yellow; tibiae black with two yellow rings, one subbasal the other subdistal; tarsi pale chestnut orange; posterior border of abdominal sternite VII brownish orange. *Structure*: Rostrum reaching posterior margin of abdominal sternite V; buccula with spiny projection; each frontal angle produced forward as a medium-sized conical lobe, directed forward and slightly outward, and not reaching the postocular tubercle; humeral angles rounded, obtuse, not exposed; hemelytra macropterous, reaching apex of last abdominal segment; femora unarmed.

Genital capsule: Posteroventral edge tetralobulate, lateral lobes short and conical, submedial lobes broad, and short, and mesally weakly expanded, almost straight (Fig. 2).

Female. Coloration similar to male holotype. Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates black to reddish brown; outer angle of gonocoxae I yellow.

Variation.—Basal third of femora entirely black.

Type material.—Holotype male, Indonesia: Sumatra, Prov. Jambi, 35 km N of Sungaipenuh, env. of National Park Kerinci-Seblat, Mt. Kerinci, 1,500–2,000 m, 18-22-XI-1999, A. V. Gorochoy (ZMAS). Paratypes: 6 ♂, 5 ♀, same data as holotype (UNAM, ZMAS).

Discussion.—This species is similar to *Hygia (Pterocolpura) armillata* (Bredin) with the tibiae black to reddish brown and two yellow rings, the rostrum reaching the abdominal sternite V, and the frontal angles produced forward as medium-sized conical lobes, not reaching the postocular tubercles.

In *H. (P.) armillata*, the basal joint of antennal segments II and III are yellow, the femora are yellow with distal thirds black to reddish brown and scattered with discoidal and irregular reddish-

brown spots, and the posteroventral edge of male genital capsule is clearly pentalobulate with median lobe expanded (Fig. 6). In *H. (P.) anthrax*, antennal segments II and III are entirely black, the femora are almost entirely black with brownish orange marks, and the posteroventral edge of the genital capsule is tetralobulate, with the space between the submedial lobes weakly expanded to almost straight (Fig. 2).

Etymology.—From the Greek “*anthrax*” (coal black), referring to the overall dark coloration.

Hygia (Pterocolpura) sylvestris

Brailovsky, new species

(Figs. 3, 8, 10)

Description.—Measurements: Male: Head length 1.52; width across eyes 1.50; interocular space 0.72; interocellar space 0.28; preocular distance 0.97; length antennal segments: I, 1.04; II, 1.36; III, 1.00; IV, 1.08. Pronotum: Length 1.60; maximum width of anterior lobe 1.80; maximum width of posterior lobe 2.80. Scutellar length 1.32; width 1.32. Body length 9.08. Female: Head length 1.58; width across eyes 1.56; interocular space 0.74; interocellar space 0.33; preocular distance 1.02; length antennal segments: I, 1.04; II, 1.48; III, 1.08; IV, 1.16. Pronotum: Length 1.80; maximum width of anterior lobe 1.92; maximum width of posterior lobe 3.08. Scutellar length 1.48; width 1.44. Body length 10.12.

Male (holotype). *Color*: Black with following areas yellow to brownish yellow: basal joint of antennal segment III, antennal segment IV (basal third black), apex of scutellum, an irregular discoidal spot on inner third of apical margin of endocorium, posterior margin of connexivum, rostral segments I to IV, trochanters, basal third of hind femur, and posterior margin of abdominal pleural sterna; hemelytral membrane

dark brown; tarsi pale chestnut orange. *Structure*: Rostrum reaching basal margin of abdominal sternite VI; buccula rounded without anterior spiny projection; eyes relatively small and globose; each frontal angle produced forward as small conical lobe; humeral angles rounded, obtuse, not expanded; hemelytra macropterous, reaching apex of last abdominal segment; femora unarmed.

Genital capsule: Posteroventral edge pentalobulate, lateral lobes strongly produced, stout, and conical, submedial lobes broadly quadrate with inner angle curved inward, and mesial lobe evenly trapezoid, with apex slightly bifurcate (Fig. 3).

Female.—Coloration similar to male holotype. Connexival segments VIII and IX black with posterior margin dark yellow; dorsal abdominal segments VIII and IX black; genital plates black with outer angle of gonocoxae I dark yellow. Female genitalia as in Figs. 8, 10.

Variation.—Anterior lobe of metathoracic peritreme dark yellow.

Type material.—Holotype male, Indonesia: Sumatra, Prov. Jambi, 35 km N of Sungaipenuh, env. of National Park Kerinci-Seblat, Mt. Kerinci, 1,500–2,000 m, 18-22-XI-1999, A. V. Gorochoy (ZMAS). Paratype: 1 ♀, same data as holotype (ZMAS).

Discussion.—Closely related to *Hygia* (*Pterocolpura*) *tomokunii* Brailovsky and Barrera (in press) with the posteroventral edge of male genital capsule pentalobulate. In *H. (P.) tomokunii*, the buccula has an anterior spine projection, the hemelytral membrane is pale brown, the fore and middle femora are brown to black with their basal third yellow, the hind femur has the anterior half yellow and posterior half brown, the lateral lobes of male genital capsule are elongate and acute, and the median lobe is clearly bifid (Fig. 4). In *H. (P.) sylvestris*, the buccula is rounded without an anterior spiny projection, the hemelytral mem-

brane is dark brown, the fore and middle femora are black, the hind femur is black with only the basal joint yellow, the lateral lobes of the male genital capsule are strongly robust, and the median lobe is trapezoidal with the apex truncated or weakly bifid (Fig. 3).

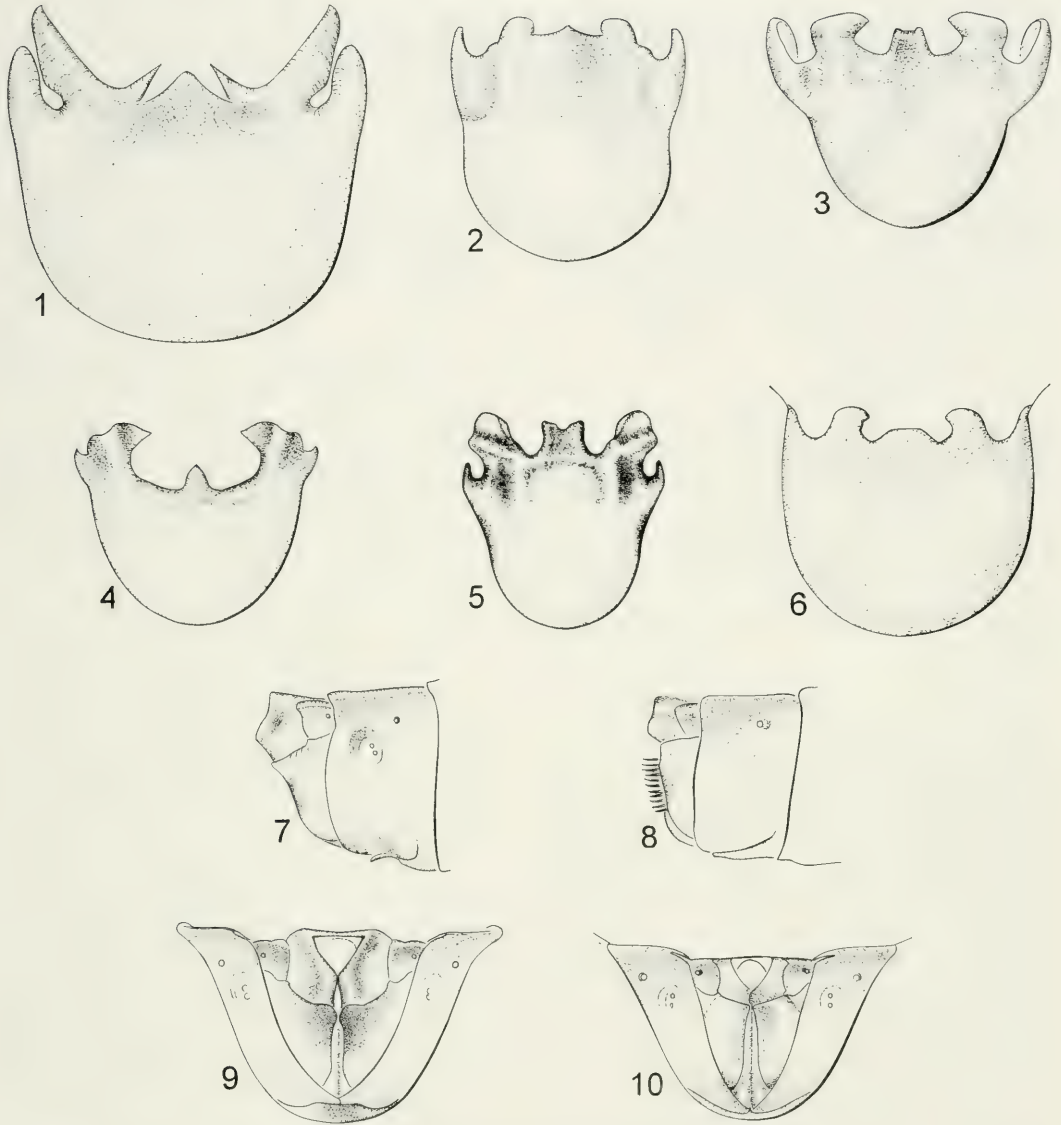
Etymology.—From the Latin “*sylvestris*” (wood), referring to the fact that the species is found in association with forests.

Hygia (*Pterocolpura*) *diaphora*
Brailovsky, new species

(Figs. 1, 7, 9)

Description.—Measurements: Male: Head length 1.96; width across eyes 2.04; interocular space 0.84; interocellar space 0.40; preocular distance 1.20; length antennal segments: I, 1.96; II, 2.92; III, 1.96; IV, 1.76. Pronotum: Length 2.48; maximum width of anterior lobe 2.40; maximum width of posterior lobe 3.68. Scutellar length 1.92; width 1.80. Body length 13.50. Female: Head length 2.08; width across eyes 2.08; interocular space 0.88; interocellar space 0.40; preocular distance 1.22; length antennal segments: I, 2.04; II, 3.20; III, 2.06; IV, 1.80. Pronotum: Length 2.64; maximum width of anterior lobe 2.48; maximum width of posterior lobe 4.08. Scutellar length 2.12; width 2.08. Body length 13.43.

Male (holotype). *Color*: Head black; antennal segments I to III black and IV orange with basal third black; pronotum black with frontal angles and anterior half of anterolateral border yellow to brownish orange; humeral angles and posterior margin with reddish-black marks; scutellum reddish black with apex yellow; clavus and corium reddish black with costal border dark orange and small yellow discoidal spot close to apical margin of endocorium; hemelytral membrane brown with veins darker; connexivum reddish black with posterior margin of connexival



Figs. 1-10. *Hygia (Pterocolpura)* spp. 1-6, Male genital capsule in caudal view. 1, *H. (P.) diaphora*. 2, *H. (P.) anthrax*. 3, *H. (P.) sylvestris*. 4, *H. (P.) tomokuni*. 5, *H. (P.) pentafurcata*. 6, *H. (P.) armillata*. 7-10, Female genitalia. 7-8, Lateral view. 7, *H. (P.) diaphora*. 8, *H. (P.) sylvestris*. 9-10, Caudal view. 9, *H. (P.) diaphora*. 10, *H. (P.) sylvestris*.

segments III to VI yellow; dorsal abdominal segments dark reddish with orange reflections. *Ventral coloration*: Black with dark reddish reflections; rostral segments I to IV, trochanters, inner face of basal third of hind femur, and posterior margin of pleural abdominal sterna III to VI yellow; posterior margin of propleura and

metapleura, and anterior and posterior lobe of metathoracic peritreme brownish orange; femora dark orange brown; tibiae pale orange brown; tarsi yellow with chestnut reflections. *Structure*: Eyes hemispheric, and globose; rostrum reaching posterior border of abdominal sternite V; buccula with spiny projection; each fron-

tal angle produced forward as slender triangular lobe, apically rounded; humeral angles rounded, obtuse, not exposed; macropterous, reaching apex of last abdominal segment; femora with double row of small tubercles.

Genital capsule: Posteroventral edge pentalobulate, lateral lobes stout and quadrate, submedial lobes elongate, foliate, directed upward and slightly outward, and median lobe triangular with apex rounded (Fig. 1).

Female.—Coloration similar to male holotype. Connexival segments VIII and IX black with dark reddish reflections, and with posterior border brownish yellow; dorsal abdominal segments VIII and IX and genital segments black with dark reddish reflections; outer angle of gonocoxae I yellow. Female genitalia as in figs. 7, 9.

Variation.—1, Dorsal view of postocular tubercle brownish orange; 2, apical third of rostral segment I dark brown; 3, humeral angles brownish orange; 4, dorsal abdominal segments dark reddish brown.

Type material.—Holotype male, Indonesia: Sumatra, Prov. Jambi, 35 km N of Sungaipenuh, env. of National Park Kerinci-Seblat, Mt. Kerinci, 1,500–2,000 m, 18-22-XI-1999, A. V. Gorochoy (ZMAS). Paratypes: 2 ♂, 2 ♀, same data as holotype (UNAM, ZMAS).

Discussion.—This new species resembles *Hygia (Pterocolpura) pentafurcata* Brailovsky (2002) by the shape of the

frontal angles, the small yellow discoidal spot on the endocorion, the rostrum nearly reaching the posterior margin of abdominal sternite V, and the tibiae uniformly paler than the femora. In *H. (P.) diaphora*, the fore and middle femora are reddish brown, the median lobe of the posteroventral edge of the male genital capsule is triangular, not bifid like in *H. (P.) pentafurcata* (Figs. 1, 5), and the fore and middle femora are reddish brown with their anterior half or anterior third yellow.

Etymology.—From the Greek “*diaphoros*” (different), referring to the fact that the species differs from the other ones.

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LITERATURE CITED

- Brailovsky, H. 2002. Two new genera and five new species of Malaysian and Australasian Coreidae (Insecta: Hemiptera: Heteroptera). *Reichenbachia* 34(28): 241–255.
- Brailovsky, H. and E. Barrera. In press. Seven new species of *Hygia (Pterocolpura)* Blöte (Heteroptera: Coreidae: Colpurini) from Malaysia (Borneo). *Journal of the New York Entomological Society*.